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Touch Tone Technologies, Inc
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EXAMINER

VU, TUAN A

ART UNIT	PAPER NUMBER
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2124

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DATE MAILED: 07/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/556,439

Applicant(s)

AMICK, JOHN KENNETH

Examiner

Tuan A Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 April 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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DETAILED ACTION

1. This action is responsive to the application filed April 24, 2000.

Claims 1-31 have been submitted for examination.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1, 2, 11, 17, 22, and 23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The limitation recited as "CALL PULL-BACK mechanism" (e.g. line 1 claim 1 or line 2, claim 2) is not provided in the claims nor is it in the specifications with sufficient description as to enable understanding by one skilled in the art in order to produce or make use of what such limitation represents. Pages 2, 6-7 of the specs refers this CALL PULL-BACK mechanism to a patent application for further understanding, and this application (09/266,724) is cited in page 1 as only a cross-reference, not part of the specifications. Given the level of the ordinary skill in the art, the nature of the invention, the amount of direction provided by the inventor, and the quantity of experimentation expected to make or make use of the invention, the above referring to a pending application is not deemed sufficient to teach one skilled in the art to make or/and use the full scope of the claimed invention without undue experimentation.

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In order to examine the case, the examiner will interpret such CALL PULL-BACK mechanism as any mechanism to address a call or to process a call.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-13, 16-23, 26, and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnhouse et al., USPN: 6,393,476 (hereinafter Barnhouse), in view of DEC (no author), "DEC Computer Integrated Telephony (CIT) Applications Interface for VMS Programming", October 1991, Version 2.1 (hereinafter CIT-DEC).

As per claim 1, Barnhouse discloses a method for configuring a communication system having a call processing, i.e. CALL PULL-BACK, mechanism (e.g. *call processing* - col. 6, lines 35-42), such method comprising:

populating a digital repository with preprogrammed software objects (e.g. *collection of operations ... managed objects and service testing* - col. 10, lines 21-67; *MOCE 230* - Fig. 13);

selecting a subset of the preprogrammed software objects from the repository (e.g. Fig. 15);

configuring the subset of preprogrammed objects with user selection so as to implement predetermine functions when executed by a processor (e.g. Fig. 13-14; *select configuration 452* – Fig. 15; Fig. 17; *service control, call control, Bearer control* Fig. 6; *store_and_forward a* – Fig. 10– Note: the configuration in the MOCE performed by the developer to adapt to context and

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object type is equivalent to customizing objects with user parameters and predetermined functions as shown in Fig. 6 & 10 are equivalent to predetermined functions);

mapping the predetermined functions to corresponding operating system inputs (e.g. col. 11, lines 33-45; Fig. 7; *keys on the telephone* - col. 15, line 64 to col. 16, line 7); and

performing the predetermined functions when initiated by the corresponding operating system inputs (e.g. Fig. 12; col. 15, line 64 to col. 16, line 7).

But Barnhouse does not specify that configuring the subset of preprogrammed objects is customizing the subset of preprogrammed objects with user-defined parameters. Barnhouse discloses the user intervention in selecting and configuring the objects or reuse framework (e.g. Fig. 12; col. 13, line 14 to col. 14, line 25; col. 18, lines 45-64) to accommodate the service objects identified by user initiated call events (Fig. 11) , hence suggests customizing the service functions via events and call instances leading to the identification of service objects to assemble. The customizing of software modules or objects according to developer or user's specified parameters are further evidenced by CIT-DEC, which, in an application development interface to process telephone calls analogous to the MOCE by Barnhouse, discloses the passing of arguments and defining of types (e.g. ch. 1.3.4, 2.1-2.5) to specify call processing functionality via a development toolkit. It would have been obvious for one of ordinary skill in the art at the time the invention was made to provide, in case it has not already been provided, the customizing of software objects or programs according to the call processing functionalities using developer or user defined parameters as suggested by CIT-DEC to the configuration or objects linking process as suggested by Barnhouse because this would enable the fulfilling of a

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desired customer's configuration or application by means of interface enabling user or developer's parameters definition to be inputted.

As per claim 2, see Barnhouse (col. 6, lines 30-48; Fig. 5) (Note: the call processing processor and communication interface are equivalent to predetermined functions associated with a CALL PULL-BACK mechanism).

As per claim 3, Barnhouse discloses documentation associated with objects, hence predetermined functions in the repository (e.g. col. 10, lines 28-34).

As per claim 4, Barnhouse does not disclose including user defined parameters in documentation drawings, but official notice is taken that documentation with drawings in a programming environment, such as modeling, or software configuration framework including specified parameters by the users was a well-known concept in the art at the time of the invention. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to provide user parameters as part of the drawings in the documentation as taught by Barnhouse for this would enable better understanding on relationships between the user's specifications and the objects which are assembled or documented for fulfilling the functionality based on those specifications or parameters.

As per claim 5, Barnhouse does not explicitly disclose packaging of preprogrammed objects as a consumer product but suggests distribution of functions to network resources or customer systems with interface to activate those functions (e.g. col. 9, lines 9-46); and Java portable and easy-to-manipulate applications code or toolkit (e.g. col. 13, lines 23-47). The making of software object modules into a package or toolkit to be installed and activated on the customer deploying environment is also evidenced by the CIT-DEC development interface as

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mentioned above (e.g. *Installation and Configuration* ... - chapter: Associated Documentation).

It would have been obvious for one of ordinary skill in the art at the time the invention was made to provide the preprogrammed objects as taught by Barnhouse via the above suggestions in form of customer installable product as taught by CIT-DEC because this would enable the efficient distribution to users of program functions customized for their needs as intended by Barnhouse.

As per claim 6, this claim would have been obvious in light the rationale as set forth in claim 5 above for a product as mentioned above is definitely made to induce a purchase by or be offered for sale to a consumer.

As per claims 7 and 8, official notice is taken that a software product being stored in a computer-readable medium (re claim 7) and providing documentation (re claim 8) with a delivered product were well-known concepts at the time of the invention; hence, in the light of the rationale as set forth in claim 5, this computer readable medium would also have been obvious because of such medium would enable the distribution and usage of the product more efficiently and providing documentation would also have been obvious because a product needs to have an documentation associated thereto to inform the user as much as possible.

As per claim 9, official notice is taken that offering a product for sale with advertising over the internet was a well-known concept at the time of the invention; hence, in the light of the rationale as set forth in claim 6, this advertising over the internet limitation would have been also been obvious because advertising a product would facilitate much further the sale of such product, especially when the product is distributable via the internet as suggested by the Barnhouse from above.

As per claim 10, Barnhouse discloses a configurable communications system, comprising:

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a digital repository populated with preprogrammed software objects (e.g. *collection of operations ... managed objects and service testing* - col. 10, lines 21-67; *MOCE 230* - Fig. 13) configured to perform predetermined functions configurable by the user when executed by a processor (e.g. *select configuration 452* – Fig. 15; Fig. 17; *service control, call control, Bearer control* Fig. 6; Fig. 12); input devices configured to receive the user parameters (e.g. col. 13, line 14 to col. 14, line 25 – Note: reuse and framework are providing elements to an developing environment in which user parameters are inputted in the building of code); the processor (e.g. *ICP* – Fig. 5) ; and computer medium (e.g. terminal 52, Fig. 5) encoded with instructions to implement a call processing mechanism to perform the predetermined functions (e.g. col. 6, lines 35-42; Fig. 11-12).

But Barnhouse does not specify the configuration system is configuring objects to perform functions that are customized or customizable by user defined parameters. But this limitation has been addressed in claim 1 above, hence is rejected herein with the rationale as set forth therein.

As per claim 11, see claim 2.

As per claim 12, Barnhouse does not specify a database being hosted by one computer readable medium and a printed document, but in view of the rejections of claims 4-5 and 7-8 related to storing documentation in product stored in a readable medium, the storing of a repository of preprogrammed objects for distribution to a consumer would have been an obvious variation of the combined limitations in claims 4-5 and 7-8, hence is rejected herein using the corresponding rationale as set forth therein.

As per claim 13, Barhouse discloses call processing with provision for multi-media messaging (e.g. col. 15, lines 47-51).

As per claim 16, Barnhouse discloses a computer program product, comprising: a computer storage medium and a computer program embedded therein to implement a call processing system (e.g. *terminal 52* ; *ICP* - Fig. 5; col. 6, lines 35-42), such program code comprising:

a first computer code configured to create a library of preprogrammed software objects capable of performing predetermined functions (e.g. *libraries 264, 266* – Fig. 7);

a second code configured to store the library of preprogrammed software objects in a digital repository (e.g. *collection of operations ... managed objects and service testing* - col. 10, lines 21-67; *MOCE 230* - Fig. 13; Fig. 7);

a third code configured to select a subset of the preprogrammed software objects from the repository based on a pre-selected portion of the predetermined functions (e.g. Fig. 15 – Note: each type or configuration is equivalent to only a subset of predetermined functions for which objects are being collected);

a fourth code configured to configure the selected preprogrammed software objects based on the user calling instances and events (e.g. Fig. 15; col. 17, line 10 to col. 18, line 26); and

a fifth code configured to process calls based on the preprogrammed software objects as configure with the user calling instances and events (e.g. Fig. 12; col. 17, line 10 to col. 18, line 26).

But Barnhouse does not specify that the fourth code is to customize the selected preprogrammed software objects based on user defined parameters; nor does Barnhouse specify

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that the fifth code is to process preprogrammed software objects as customized by user defined parameters. But the use of development interface to input user parameters for customizing the functionalities of a program object code to implement a call processing has been suggested by Barnhouse in claim 1 and further evidenced by CIT-DEC therein; hence the above limitations would be rejected herein using the same rationale as set forth there in claim 1 above.

As per claim 17, see claim 2.

As per claim 18, Barnhouse discloses a database (e.g. *database 230* – Fig. 5).

As per claim 19, refer to claim 10 for similar rejection.

As per claim 20, this claim is equivalent to the limitation of claim 17, above; hence is rejected herein likewise.

As per claim 21, Barnhouse discloses communication attributes (e.g. *session identifier rates, protocol SS7* – col. 14, lines 29-59; *attributes of resources* - col. 16, lines 8-27; Fig. 9-10 – Note: every subdivision within a communication class of Fig. 9-10 suggests an attribute for connectivity and/or call processing service) and use of programming environment to create class for services (e.g. Fig. 8) but does not specify that these are user defined parameters. But in view of the teachings by CIT-DEC to define parameters in creating call processing functionality programs as mentioned in claim 1 above, the user's defining limitation would have been obvious using the same rationale as set forth in the corresponding rejection in claim 1, i.e. such user defined attributes would better accommodate the user connection and request for telephony service connection via means to import the user's specified preferences.

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As per claim 22, this claim is the system claim corresponding to claim 1 above, including means to perform the same limitations steps as recited in claim 1; hence is rejected herein with the same grounds as set forth therein.

As per claim 23, refer to claim 2.

As per claim 26, Barnhouse discloses locking a bandwidth via call blocking (e.g. *call block 294* - Fig. 9).

As per claim 28, Barnhouse discloses control on numbering (e.g. *look up for a number* - col. 17-26) and forwarding (e.g. col. 15, lines 47-64; col. 17, lines 20-29) from edges devices near or at customer premises (Note: the managed objects as disclosed by Barnhouse telephony call control system implies the monitoring of call number and forwarding typical in a network management system).

As per claim 29, Barnhouse discloses record keeping of client's configuration of the subset of preprogrammed objects (e.g. col. 13, lines 23-47; col. 13, lines 18-64 – Note: the configuring or modeling of objects using tools being stored in the repository for reuse is equivalent to record keeping of each developer's configuration instance).

As per claim 30, Barnhouse does not disclose documenting spoken verbiage or member information in the configuration environment but teaches the SLEE for authoring the preprogrammed objects (e.g. col. 7, lines 33-35). Official notice is taken that in an software developing environment with configuration as suggested by both Barnhouse and CIT-DEC, the developer information as well as developer's comments being recorded for being part of the configuration management was a known concept in the art at the time of the invention. Hence, it would have been obvious for one of ordinary skill in the art at the time the invention was made

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to include to Barnhouse's system (with the teachings by CIT-DED) the developer's comments and personal identification because these would enable tracking the author to the configuration state of the preprogrammed objects, thereby enhance code modifications control or integrity checking.

As per claim 31, refer to claim 3 for corresponding rejection.

6. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnhouse et al., USPN: 6,393,476 , in view of DEC (no author), "DEC Computer Integrated Telephony (CIT) Applications Interface for VMS Programming", as applied to claim 10, and further in view of Underwood, USPubN: 2003/0016675 (hereinafter Underwood).

As per claim 14, Barnhouse does not disclose a communication for receiving data over a Sonet Ring and a meshed network. The communication over the network involving a Sonet Ring or a meshed network is not unknown to the art at the time the invention was made. Underwood, in a method to implement telephone switching and call processing analogous to Barnhouse, discloses communication over a Sonet ring (e.g. paragraph 0004; Fig. 8) and a meshed network (e.g. paragraph 0025; Fig. 1-2). It would have been obvious for one of ordinary skill in the art at the time the invention was made to provide the functionalities of the call processing system as taught by Barnhouse with the capabilities to communicate over a Sonet Ring or a meshed switching network as taught by Underwood, because this would extend the call processing system by Barnhouse so as to be able to interconnect optical network as well as non-hierarchical or meshed network.

As per claim 15, again it is Underwood to come up with configuring the mesh and Sonet ring network with ATM as a transport for packet traffic (e.g. Fig. 1,2). And the motivation for

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Barnhouse to obviously provide such ATM based transport for network communication as suggested by Underwood would be the same as that used in the rationale set forth in claim 14 above, since ATM is known to be more compatible with mesh network and Sonet-based links.

7. Claims 24-25, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnhouse et al., USPN: 6,393,476 , in view of CIT-DEC (no author), "DEC Computer Integrated Telephony (CIT) Applications Interface for VMS Programming", as applied to claim 22; and further in view of Garner, USPN: 6,411,806 (hereinafter Garner).

As per claims 24 and 25, Barnhouse does not specify disaster resistant communications nor does Barnhouse disclose transporting between traffic when an outbound footprint is exceeded. Official notice is taken that at the time of the invention the telecommunications technology has evolved to include wireless communications and this was a known concept in the telephony industry. Further, Garner, in a system to configure mobile communications between users using routing techniques analogous to the call processing and intelligent switching system by Barnhouse (see Barnhouse: Abstract, Background of invention; Fig. 5), discloses a fault tolerant a computer network with fault tolerant features and outbound signaling channels (e.g. col. 5, lines 15-20; Fig. 5; col. 8, lines 43-48). It would have been obvious for one of ordinary skill in the art at the time the invention was made to provide the disaster resistant features and the outbound rerouting as suggested by Garner and well-known concepts to Barnhouse intelligent call routing and switching network. The motivation is that these two features would further enhance the sturdiness of the system by Barnhouse to provide the intelligent processing of telephony connection and data transmission request, more particularly when such processing is extended to cover wireless communications as suggested by Garner.

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As per claim 27, Barnhouse discloses migration to an ATM communications (e.g. col. 9, lines 47-63) but does not teach tearing down of a ATM cloud as claimed whereas Garner teaches remote switching with asynchronous mode (e.g. col. 37, lines 60-67). At the time of the invention, official notice is taken that it was a well-known concept that a connection is determined to be a invalid if it is being determined to end on the same point from which it originates. Hence, in the event that Barnhouse establishes an ATM network as suggested by Garner from above to cover mobile communications call processing (re claim 24-25), it would have been obvious for one of ordinary skill in the art at the time the invention was made to invalidate any wireless call that would end on the same concentrator it originates from, and take away the ATM connection related to such wireless cloud connection as suggested by known concept and by Garner teachings and apply this to Barnhouse's method because this would enhance optimization of network resources or bandwidth allocation for ATM-based call processing by Barnhouse, more particularly when such processing is extended to cover wireless communications in the ATM network as suggested by Garner.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat No. 6,389,124 to Schnarel et al., disclosing mobile device configuring interface and communication state.

U.S. Pat No. 5,867,495 to Elliott et al., disclosing user profile and telephony routing configuration environment.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A Vu whose telephone number is (703)305-7207. The examiner can normally be reached on 8AM-4:30PM/Mon-Fri.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (703)305-9662.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 746-7239, (for formal communications intended for entry)

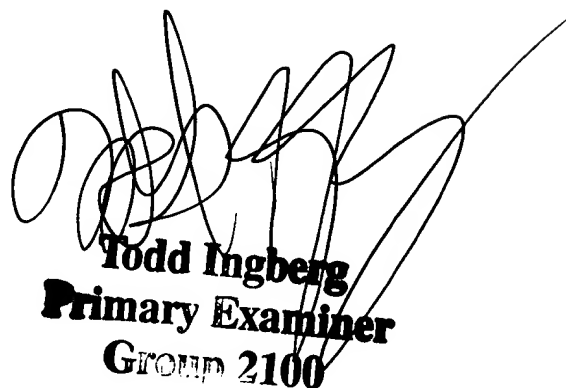
or: (703) 746-7240 (for informal or draft communications, please label

"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA. , 22202. 4th Floor(Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

VAT
July 25, 2003


Todd Ingberg
Primary Examiner
Group 2100